

INTERNATIONAL SEARCH REPORT

International Application No
PCT/US2004/029148

A. CLASSIFICATION OF SUBJECT MATTER IPC 7 G01B9/02 A61B5/00		
According to International Patent Classification (IPC) or to both national classification and IPC		
B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) IPC 7 G01B A61B		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
Electronic data base consulted during the international search (name of data base and, where practical, search terms used) EPO-Internal, WPI Data, PAJ		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 98/35203 A (MASSACHUSETTS INSTITUTE OF TECHNOLOGY) 13 August 1998 (1998-08-13)	1-6, 15, 18-33, 45, 80-93
Y	abstract; figure 1 page 19, line 20	7-14, 16, 17, 34-44, 46-79
Y	page 10, line 1 - line 3 ----- WO 97/32182 A (MASSACHUSETTS INSTITUTE OF TECHNOLOGY) 4 September 1997 (1997-09-04) page 27, line 8 - line 24; figure 11a ----- -/--	11, 12, 37, 38, 61, 62
<input checked="" type="checkbox"/> Further documents are listed in the continuation of box C. <input checked="" type="checkbox"/> Patent family members are listed in annex.		
* Special categories of cited documents : *A* document defining the general state of the art which is not considered to be of particular relevance *E* earlier document but published on or after the international filing date *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) *O* document referring to an oral disclosure, use, exhibition or other means *P* document published prior to the international filing date but later than the priority date claimed *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art *Z* document member of the same patent family		
Date of the actual completion of the international search 14 March 2005		Date of mailing of the international search report 22/03/2005
Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016		Authorized officer Schmidt, C.

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 92/19930 A (MASSACHUSETTS INSTITUTE OF TECHNOLOGY; SWANSON, ERIC, A) 12 November 1992 (1992-11-12) page 59, line 4 - page 62, line 18; figure 11	7-10, 13, 14, 16, 17, 34-36, 39-44, 46-70
A	WO 00/58766 A (SCIMED LIFE SYSTEMS, INC) 5 October 2000 (2000-10-05) abstract; figure 1	11, 12, 37, 38, 61, 62
A	US 6 501 551 B1 (TEARNEY GUILLERMO ET AL) 31 December 2002 (2002-12-31) abstract; figure 3	1, 20, 21
Y	US 4 601 036 A (FAXVOG ET AL) 15 July 1986 (1986-07-15) figure 5	71-79
A	US 4 868 834 A (FOX ET AL) 19 September 1989 (1989-09-19) abstract; figure 1	71-79
A	EP 0 251 062 A (FUJITSU LIMITED) 7 January 1988 (1988-01-07) abstract; figure 7	15-17, 41-43, 65-67
A	US 2003/023153 A1 (IZATT JOSEPH A ET AL) 30 January 2003 (2003-01-30) the whole document	81-93
A	US 6 341 036 B1 (TEARNEY GUILLERMO J ET AL) 22 January 2002 (2002-01-22) paragraphs '0018!', '0020!	1, 20, 21

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No
PCT/US2004/029148

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 9835203	A	13-08-1998	US 5956355 A WO 9835203 A2 US 6160826 A	21-09-1999 13-08-1998 12-12-2000
WO 9732182	A	04-09-1997	US 6134003 A AU 1977597 A EP 0883793 A1 JP 2000503237 T JP 2002214127 A US 6485413 B1 US 6111645 A WO 9732182 A1 US 6160826 A US 6564087 B1 US 6501551 B1 US 6282011 B1 US 5956355 A US 2001036002 A1	17-10-2000 16-09-1997 16-12-1998 21-03-2000 31-07-2002 26-11-2002 29-08-2000 04-09-1997 12-12-2000 13-05-2003 31-12-2002 28-08-2001 21-09-1999 01-11-2001
WO 9219930	A	12-11-1992	DE 69227902 D1 DE 69227902 T2 EP 0581871 A1 JP 3479069 B2 JP 6511312 T JP 2004105708 A US 5459570 A US 6485413 B1 US 6111645 A WO 9219930 A1 US 5465147 A US 6160826 A US 6564087 B1 US 6501551 B1 US 6282011 B1 US 6134003 A US 5321501 A US 5956355 A US 2001036002 A1	28-01-1999 17-06-1999 09-02-1994 15-12-2003 15-12-1994 08-04-2004 17-10-1995 26-11-2002 29-08-2000 12-11-1992 07-11-1995 12-12-2000 13-05-2003 31-12-2002 28-08-2001 17-10-2000 14-06-1994 21-09-1999 01-11-2001
WO 0058766	A	05-10-2000	CA 2367804 A1 EP 1181598 A1 JP 2002540465 T WO 0058766 A1 US 6263133 B1	05-10-2000 27-02-2002 26-11-2002 05-10-2000 17-07-2001
US 6501551	B1	31-12-2002	US 5784352 A US 6134003 A US 5748598 A US 5459570 A US 6485413 B1 US 6111645 A US 6160826 A US 6564087 B1 US 6282011 B1 US 5956355 A US 2001036002 A1 AU 1977597 A EP 0883793 A1	21-07-1998 17-10-2000 05-05-1998 17-10-1995 26-11-2002 29-08-2000 12-12-2000 13-05-2003 28-08-2001 21-09-1999 01-11-2001 16-09-1997 16-12-1998

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US2004/029148

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 6501551	B1		JP 2000503237 T	21-03-2000
			JP 2002214127 A	31-07-2002
			WO 9732182 A1	04-09-1997
			WO 9723870 A1	03-07-1997
			WO 9701167 A1	09-01-1997
			WO 9533970 A1	14-12-1995
			DE 69227902 D1	28-01-1999
			DE 69227902 T2	17-06-1999
			EP 0581871 A1	09-02-1994
			JP 3479069 B2	15-12-2003
			JP 6511312 T	15-12-1994
			JP 2004105708 A	08-04-2004
			WO 9219930 A1	12-11-1992
			US 5465147 A	07-11-1995
			US 5321501 A	14-06-1994
US 4601036	A	15-07-1986	CA 1223949 A1	07-07-1987
			DE 3335317 A1	05-04-1984
			GB 2129201 A	10-05-1984
			JP 1036987 B	03-08-1989
			JP 1551508 C	23-03-1990
			JP 59084487 A	16-05-1984
US 4868834	A	19-09-1989	NONE	
EP 0251062	A	07-01-1988	JP 1945322 C	23-06-1995
			JP 6071233 B	07-09-1994
			JP 63001124 A	06-01-1988
			JP 2018681 C	19-02-1996
			JP 6071232 B	07-09-1994
			JP 63019928 A	27-01-1988
			CA 1290019 C	01-10-1991
			DE 3788537 D1	03-02-1994
			DE 3788537 T2	19-05-1994
			EP 0251062 A2	07-01-1988
			US 5003626 A	26-03-1991
US 2003023153	A1	30-01-2003	US 6006128 A	21-12-1999
			AU 7711498 A	21-12-1998
			EP 1007901 A1	14-06-2000
			JP 2002503134 T	29-01-2002
			WO 9855830 A1	10-12-1998
US 6341036	B1	22-01-2002	US 2002122246 A1	05-09-2002
			AU 758078 B2	13-03-2003
			AU 2882399 A	15-09-1999
			EP 1057063 A1	06-12-2000
			JP 2002505434 T	19-02-2002
			WO 9944089 A1	02-09-1999